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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,461	02/05/2004	Minoru Murata	01-588	2939

23400 7590 04/06/2005

POSZ LAW GROUP, PLC
12040 SOUTH LAKES DRIVE
SUITE 101
RESTON, VA 20191

EXAMINER

CHAPMAN JR, JOHN E

ART UNIT	PAPER NUMBER
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2856

DATE MAILED: 04/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/771,461	MURATA ET AL.	
	Examiner	Art Unit	
	John E. Chapman	2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>2/5/04</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

1. Claim 2 is objected to because of the following informalities: In claim 1, line 2, “portions” should be --portion--, since “a suction portion” is recited in claim 1, line 7.

Appropriate correction is required.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakai et al.

Sakai et al. discloses a semiconductor dynamic sensor comprising a semiconductor substrate 1 having a displacement portion 6 and a suction portion 102 that is formed on the surface of the semiconductor substrate in a region separated from the displacement portion. The suction portion 102 is a flat portion. Whether it is larger or smaller than the contact area of a tip of a collet chuck depends on the size of the contact area. Claim 1 is directed to the semiconductor dynamic sensor only, and not to the combination of a semiconductor dynamic sensor and a collet chuck. Accordingly, the limitation that the area of the suction portion is larger than the contact area of the tip of the collet chuck is not given any patentable weight, since a collet chuck is not positively recited in the claim. Furthermore, as evident from Fig. 14A, the contact area of the tip of collet chuck K1 with the suction portion 102 is smaller than the area of

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the suction portion 102, since the tip of collet chuck K1 does not contact the entire surface of the suction portion 102.

Regarding claims 2 and 3, the number and location of the suction portions depends on the structure of the collet chuck, i.e., the number and location of suction holes in the collet chuck, which limitations are not given any patentable weight, since a collet chuck having a plurality of suction holes is not positively recited in the claims.

Regarding claim 4, the suction portion 102 has no step portion and no wiring pattern.

Regarding claim 5, note Fig. 14A.

Regarding claim 6, whether air is sucked from the clearance between the fixed electrode 4 and the moveable electrode 2 when a collet chuck sucks the semiconductor dynamic sensor depends on the structure of the collet chuck. The limitation is not given any patentable weight, since the structure of the collet chuck is neither specified nor positively recited in the claim.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakai et al. in view of Roberts, Jr. et al.


Roberts, Jr. et al. discloses a vacuum probe tip in Fig. 8 comprising an annular ring of vacuum surrounding a microstructure in order not to damage the microstructure. It would have

been obvious to one having ordinary skill in the art to provide an annular ring of vacuum corresponding to the suction portion 102 of Sakai et al. in order not to damage the semiconductor dynamic sensor. It would have been obvious to make the contact area of the tip smaller than the area of the suction portion 102 in order to prevent leakage.

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hiroki et al. discloses a vacuum-process system comprising a carrier arm 230 in Fig. 17 comprising a plurality of suction holes 245 for holding the LCD substrate P. Silverbrook discloses a method of fabricating devices incorporating MEMS using a vacuum pickup 58.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John E. Chapman whose telephone number is (571) 272-2191. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JOHN E. CHAPMAN
PRIMARY EXAMINER